

Maryland Offshore Wind Business Development Fund Advisory Committee Initial Report: December 2013

1. Executive Summary

The Maryland Offshore Wind Business Development Fund (“the Fund”), as established by Maryland statute State Government Article, § 9-20C-01 et. seq. is to provide a minimum of \$10 million in funding so the State’s emerging businesses, including minority- owned emerging businesses may participate in the offshore wind industry. The two main funding sources include: i) the offshore wind project developer (\$6 million) - expected after Maryland’s Public Service Commission Offshore Renewable Energy Credit (OREC) award - and, ii) transfers from the Strategic Energy Investment Fund (\$4 million), resulting from commitments made during the 2011 merger of Exelon and Constellation Energy. The Maryland Energy Administration (MEA) is the entity that manages and supervises the Fund. This Maryland Offshore Wind Business Development Advisory Committee - hereafter referred to as ‘Advisory Committee’ - was created by the statute to make recommendations to the MEA for the efficient use of the Funds in order to maximize opportunities for emerging businesses, including minority-owned emerging businesses in the State to participate in the offshore wind industry. MEA considers these recommendations in determining how most effectively to use the money in the Fund.

In developing its recommendations, the Advisory Committee is to consider potential additional fund sources and methods to maximize fund leveraging opportunities. The statute also requires the Advisory Committee to consider mentoring and protege models, innovation clusters, existing incubator and business development programs, and the appropriate role of partnerships with the State's universities and community colleges. This initial report, consisting of the Advisory Committee’s recommendations, is due to MEA by December 31, 2013; with a subsequent report due by December 31, 2014, which is to include updated recommendations.

The Advisory Committee consists of a specific mix of Maryland’s offshore wind stakeholders specified in statute, for the purpose of providing a set of balanced recommendations. The Advisory Committee members bring their individual insights, opinions, knowledge and ideas to help form these recommendations.

During this initial year, fiscal year 2014 (FY14), the Advisory Committee is especially interested in allocating some available funding to obtain an offshore wind ‘supply chain map by function’ and to link each identified function to existing Maryland emerging businesses, including minority-owned emerging businesses. This interest resulted in the Advisory Committee’s first recommendation, which is for the MEA to issue a request for proposals to obtain a complete supply chain map by function of the offshore wind energy sector. Such a supply chain map would be significant in building a strong

offshore wind industry sector in the state. Maryland academic institutions, universities, and community colleges, along with State and county government agencies and Maryland-based NGOs, could assist in identifying Maryland's emerging businesses, including minority-owned emerging businesses that are capable of performing the identified offshore wind supply chain functions. Further, Maryland based training and education institutions could develop specialized training for Maryland emerging businesses, including minority-owned emerging businesses to raise the competencies required to develop Maryland's offshore wind supply chain.

The Advisory Committee's second recommendation is to find ways reduce near-term cost barriers so that Maryland emerging businesses, including minority-owned emerging businesses, may gain initial entry into the market by manufacturing components within Maryland and exporting them to Europe's existing offshore wind energy supply chain market. This recommendation stemmed from the members' interest in supporting manufacturing of supply chain components, which was heightened by a tour of Denmark and Germany's offshore wind sector by a group of Maryland's emerging and minority-owned emerging businesses and Advisory Committee members. Following the tour, Advisory Committee members learned that Maryland's emerging businesses, including minority-owned emerging businesses could seek early entry into the offshore wind supply chain by manufacturing within Maryland and exporting to Europe's existing offshore wind market. However, obstacles existed that would need to be addressed including: i) costs associated with a Maryland company being able to recognize and understand the specific business opportunities within Europe and ii) high non-recoverable cost barriers associated with the technically differentiated, higher value propositions offered by Maryland companies, which often cannot receive normal amortization while establishing an export supply.

The Advisory Committee's third recommendation is to allocate resources to achieve wider outreach and awareness of the opportunities within Maryland's evolving offshore wind supply chain. This recommendation stemmed from the member's recognition, throughout each of its meetings in 2013, that outreach activities begun by the Maryland Offshore Wind Business Network should be built upon. These activities have already established a strong core membership. This program should be targeted at Maryland's emerging businesses, including minority-owned emerging businesses.

In summary, the Advisory Committee's recommendations for FY 2014 are:

1. Procure industry experts' knowledge to generate an offshore wind supply chain map by function and overlay it across as many Maryland emerging businesses, including minority-owned emerging businesses as possible, in all regions of the state. Specify, that Maryland's academic institutions and stakeholders with an explicit interest in supporting emerging businesses, including minority-owned emerging businesses should be used to assist identify relevant businesses.
2. Provide ways to assist Maryland's emerging businesses, including minority-owned emerging businesses within the manufacturing sector to gain a strong

foothold in the established offshore wind supply chain market(s) by pursuing immediate export opportunities. Specifically, policies should offset high barrier administrative costs and non-recoverable CAPEX (capital expenditure) or facilities cost that Maryland's emerging businesses, including minority-owned emerging businesses will face as they seek early entry into this already established market.

3. Develop and implement a proactive statewide outreach program targeting emerging businesses, including minority-owned emerging businesses so that the opportunities identified by the supply chain map may be matched with specific state businesses. Further, the outreach program should provide a systematic assessment of available competency levels of the Maryland work force with which to form a strong basis in fostering partnerships with Maryland's providers of training and skills development.

On January 7, 2014, the Advisory Committee will reopen discussions to continue developing its updated recommendations for the use of the Fund. These discussions will focus on the needs of Maryland's emerging businesses, including minority-owned emerging businesses, associated with the state's approaching deployment of offshore wind turbines.

2. Committee Members:

The mix of Advisory Committee Members, as stipulated in statute, consists of the following:

Special Secretary of the Governor's Minority Affairs or her designee: **Zenita Wickham Hurley - Chair**

Director of Maryland Energy Administration: **Abigail Hopper**

Maryland State Senator (D): **Brian J. Feldman**

Maryland State Senator (R): **Steven S. Hershey Jr.**

Maryland State Delegate (D): **John A. Olszewski Jr.**

Maryland State Delegate (R): Open

Maryland Department of Economic Development Secretary of designee: **Carl Livesay**

Representative of Public Institution of Higher Education with the State: **Don Engel**

Representative of Historically Black African American College: **Eugene DeLoatch**

Representative of Maryland's Community College: **Rich Cerkovnik**

Representative of Maryland's Independent Colleges and University Association: **Ben Hobbs**

Representative of Small Business Development Center Network: **Renee Sprow**

Representative of Maryland's Offshore Wind Business Network: **Liz Burdock**

Representative of Business Incubator with experience in providing services to Minority Businesses: **Stanley Tucker**

Individual with offshore wind developer experience: **Armin Forester**

Representative of an original equipment manufacturer (OEM): **Sunny Gupta**

Individual who is a minority business advocate: **Lance Lucas**

Individual of offshore wind supply chain experience: **Theis Jørgensen**

Note: The Maryland Energy Administration (MEA) is providing administrative support to the Advisory Committee and its members. The following MEA staff attend meetings:

Fred Hoover, Director of Clean Energy Programs

Andrew Gohn

Ross Tyler

3. Purpose:

The Maryland Offshore Wind Business Development Fund (“the Fund”) will total a minimum of \$10 million, as specified in State Government Article § 9-20C-03. This figure consists of \$4 million from the Strategic Energy Investment Fund created from commitments made during the 2011 merger of Exelon and Constellation Energy, and \$6 million to be contributed by the successful offshore wind developer, upon Maryland’s Public Service Commission’s final order concerning the Offshore Renewable Energy Credits (ORECs) as set forth in § 7-704.1(g) of the Public Utilities Article..

The Fund is designed to provide business development, financial assistance and employee training opportunities for the benefit of emerging businesses, including minority-owned emerging businesses within Maryland, and to help prepare these businesses to participate in the state’s emerging offshore wind industry.

The Advisory Committee is required by statute to submit two reports, both containing formal recommendations (the first by December 31, 2013 and the second by December 31, 2014) on the most effective use of the Fund. Within the recommendations, the Advisory Committee is to consider opportunities to maximize any leveraging opportunities, mentoring models, innovation clusters, incubator and business development programs along with appropriate role of partnerships with Maryland’s Universities and community colleges.

4. Meeting Summaries:

The Advisory Committee members assembled initially in September 2013 and subsequently in November, as well as December. These deliberations led to the recommendations contained in this report. The meetings’ main topics are summarized below:

1. September 9, 2013 - This initial meeting provided the Advisory Committee members the Fund’s background; the purpose of the Advisory Committee; anticipated schedule; the Advisory Committee’s procedures; and, a few proposed topics for the Advisory Committee’s consideration.

2. October 29, 2013 – The Advisory Committee primarily discussed obtaining an ‘offshore wind supply chain map by function’, which was introduced in the previous meeting. The members agreed that the purpose would be to overlay information across as many Maryland emerging businesses, including minority-owned emerging businesses as possible in all geographies of the State. The Advisory Committee agreed that details of an offshore wind supply chain map and any marketing strategy were crucial to assure the participation of Maryland’s emerging businesses, including minority-owned emerging businesses.
3. December 3, 2013 – The Advisory Committee primarily discussed the needs of Maryland emerging businesses, including minority-owned emerging businesses, seeking early entry into the European offshore wind sector through exporting certain components. This would be a proactive way to immediately provide certain Maryland emerging businesses, including minority-owned emerging businesses with valuable opportunities, and could also help expedite development of Maryland’s offshore wind supply chain. Some member and other stakeholders, who had recently returned from a tour of Europe’s offshore wind sector in Denmark and Germany, saw a pressing and immediate need to help the state’s relevant emerging businesses, including minority-owned emerging businesses take advantage of certain identified manufacturing and logistical opportunities. The Advisory Committee showed its support for identifying immediate ways to help overcome some identified barriers. Such barriers included costs associated with identifying and understanding specific European commercial opportunities, and non-recoverable CAPEX or facilities cost.

Through a presentation given and broader discussions, the members learned that, within Europe, there are different models and standards for workforce development and training. Also, some members had the opportunity to witness business clusters based on the offshore wind industry, with parallel workforce development.

In previous meetings, the members recognized the importance of outreach to the state’s businesses. An invited speaker from Haley & Aldrich, with expertise in the technical aspects of the offshore wind sector, emphasized the importance and provided details concerning outreach to Maryland businesses. The speaker explained the significance of engaging in outreach early to both the public and the business community, especially in reaching ‘minority- and woman-owned businesses’.

5. Recommendations

Based on these deliberations, the Advisory Committee provides three recommendations as to the most effective use of the Fund to maximize opportunities for emerging businesses in the state:

1. *Contracting for an offshore wind supply chain map by function.* A detailed offshore wind supply chain map would illustrate what components are necessary and what businesses may have capacity to provide these components. This would allow MEA to best prioritize and plan support initiatives targeting relevant businesses. Such prioritization is important as different development phases require companies with varying expertise. Further, an offshore wind supply chain would help identify opportunities within the primary, secondary and tertiary levels of the supply chain. The Advisory Committee emphasized that MEA should require a full analysis that identifies key skills and workforce training requirements, and includes input from knowledgeable Maryland institutions that have an understanding of the state's business community. This input will tailor the supply map to the existing opportunities and challenges in Maryland.
2. *Support for Maryland's Manufacturing of Offshore Wind Components* – The Advisory Committee recommends that agencies should explore ways to provide immediate and future assistance to Maryland's emerging businesses, including minority-owned emerging businesses. Primarily, such assistance should focus on emerging businesses, including minority-owned emerging businesses that can gain early offshore wind supply chain experience by competing and exporting into the existing European offshore wind market. This would help foster the emergence of a Maryland based offshore wind supply chain cluster.
3. *Outreach* – The Advisory Committee believes it is important to proactively support relevant outreach across the state, targeting emerging businesses, including minority-owned emerging businesses, with the purpose of broadening awareness of possible opportunities within the evolving offshore wind industry. This outreach would help match specific Maryland emerging businesses, including minority-owned emerging businesses with the opportunities identified by the supply chain map by function. Further, outreach could contribute to a more systematic assessment of work force competency levels at emerging emerging businesses, including minority-owned emerging businesses and facilitate coordination of potential partnerships between them and community colleges along with other providers of training and skills development.

6. Considerations

The Advisory Committee's recommendations are supported by the following considerations:

(i) Policy Rationale

Based on discussions between MEA and several offshore wind consulting firms with expertise in this area, only certain parts of the offshore wind supply chain map are currently available. A complete supply chain map by function would allow Maryland

to start matching the functions to Maryland's emerging businesses, including minority-owned emerging businesses that can, or have potential to, perform similar functions. This would expedite the development Maryland's offshore wind supply chain.

Identifying opportunities within the new offshore wind supply chain map can provide immediate benefits for some of Maryland's manufacturing firms. By reducing some of the barriers that Maryland emerging businesses, including minority-owned emerging businesses face in entering this new sector, state manufacturers and businesses may secure a strong market presence and position while simultaneously supporting both regional and national policy concerning the reduction of greenhouse gas emissions, and building Maryland's economy.

Outreach to Maryland's emerging businesses, including minority-owned emerging businesses, will help identify the opportunities within the offshore wind sector and will provide insights into resource requirements, skills development and training needs to obtain globally accepted industry competency levels.

(II) Benefits

The knowledge of an offshore wind supply chain by function will contribute to a targeted approach in preparing Maryland's business community and its supply chain readiness. Further, it will trigger a systematic approach for engaging emerging businesses, including minority-owned emerging businesses and assessing their individual assets, skills and competencies. It will be important to include the full range of Maryland's workforce, from low-skill to PhD's, and to enhance formation of partnerships and mentor - mentee relationships. From this base, the State will be in a position to pursue investments and programs that address these areas to enable Maryland's businesses to lead in this new industry sector. This will provide Maryland emerging businesses, including minority-owned emerging businesses, the best opportunity to succeed, as well as potentially provide a competitive advantage at the national level.

A systematic approach is needed to prepare and align Maryland's emerging businesses, including minority-owned emerging businesses, to meet the needs of an established, but evolving global industry. Such an approach will likely foster the interest of other states and regional partners and, could result in future requests of support from them.

Knowledge of the complete supply chain will allow State government planners and other stakeholders to ensure that Maryland emerging businesses, including minority-owned emerging businesses and workers can be included in the offshore wind developers' net economic benefit packages as they compete for PSC's OREC award.

The offshore wind supply chain map by function will ultimately identify gaps that cannot be filled by Maryland companies. The result could be a deliberate initiative involving dialogue with overseas companies that could result in joint ventures or licensing agreements with Maryland firms. Such an approach could lead to foreign direct investment.

Supporting Maryland emerging businesses, including minority-owned emerging businesses' early entry into the offshore wind industry by exporting to European markets could improve the revenue and market position of specific state businesses and create immediate employment opportunities for Marylanders. These emerging businesses, including minority-owned emerging businesses, would then represent 'champion' or 'flagship' examples of the real opportunities that the offshore wind sector can bring the state and directly encourage other Maryland companies to pursue the same interest.

Outreach to Maryland's emerging businesses, including minority-owned emerging businesses, in the form of a state-wide campaign has the potential to reach companies: a) already familiar with offshore wind sector; b) aspiring to enter the new evolving offshore wind sector; and c) those that have yet to learn of their possible engagement within the offshore wind industry. Companies in all three categories, once identified, would have opportunity to work with state and county agencies in order to strengthen their position to become part of Maryland's offshore wind supply chain cluster.

(III) Consequences of not funding

The absence of an offshore wind supply map by function will greatly reduce the efficacy of Maryland's business development and outreach. Many of the State's emerging businesses, including minority-owned emerging businesses may be overlooked and miss growth opportunities associated with the offshore wind industry. A possible consequence is that developers seeking to present a net economic benefit package to support OREC proposals may have difficulty moving projects forwards as they are unable to accurately identify optimal local investment opportunities. Without support, Maryland emerging businesses, including minority-owned emerging businesses seeking offshore wind export opportunities will remain burdened with high risk costs, which will reduce the desirability of pursuing both short-term and longer-term opportunities in the offshore wind sector. These early, high risk costs are barriers to Maryland emerging businesses, including minority-owned emerging businesses' participation, and may also make their bids less commercially competitive. Both of these factors threaten to reduce Maryland's strategic position within the nascent US offshore wind sector. The current experience in the UK demonstrates that, without immediate assistance, businesses start at a point of disadvantage and must struggle to find ways to catch up and displace incumbent suppliers.

A lack of competencies within Maryland's emerging businesses, including minority-owned emerging businesses, could induce pressure on developer(s) to seek supply chain participants from outside the State, reducing Maryland's economic benefit and compromising state and regional clean energy policy goals.

7. Leveraging funds

In each of the Advisory Committee's meetings, the members discussed fund leveraging opportunities. Stakeholders, such as the Maryland's Offshore Wind Business Network, cited possible opportunities including: the U.S. Dept. of Commerce's Market Development Cooperation Agreement, which is a federally funded match program to help US exporters. Further, a member cited an imminent \$100 million federal grant available for career training.

The Advisory Committee expects to build on such fund leveraging examples and to incorporate them in the next report's updated recommendations.

8. 2014 & Beyond

The Advisory Committee will convene on January 7th, 2014, at which time it will schedule additional meetings to discuss the support required for emerging businesses, including minority-owned emerging businesses, for subsequent fiscal years and to make recommendations that would match anticipated funding tranches.

9. Conclusion

The Advisory Committee's three recommendations for FY14 allocation of the Maryland Offshore Wind Business Development Fund will efficiently and effectively provide a coordinated effort to benefit many of the State's emerging businesses, including minority-owned emerging businesses, interested in participating in Maryland's offshore wind sector. The recommendations seek to induce well planned and appropriate training and to create new employment opportunities within the State. Further, these recommendations are expected to increase the number and types of businesses that may participate and contribute to Maryland's offshore supply chain cluster. These three recommendations are focused on helping Maryland's emerging businesses, including minority-owned emerging businesses, prepare to meet the offshore wind industry needs, both in Maryland and in the mid-Atlantic region.